

[With the Compliments of the Author.]

RECURRENT PELVIC PERITONITIS.¹

A CLINICAL LECTURE.

Delivered at the Hospital of the Philadelphia Polyclinic and College for Graduates in Medicine.¹

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Gentlemen: This patient is thirty-two years of age, and has been a widow two years. She has never been pregnant. The duration of the present illness is uncertain. Ever since puberty she has suffered more or less from the symptoms of which she now complains. She presented herself ten days ago, and stated that she was scarcely able to be out of bed, but being unable to employ a physician she felt compelled to go to a dispensary.

Her chief symptoms were sharp pains beginning in the left iliac region, deep-seated, and shooting across to the opposite side. She said the pain began with the onset of the last menstrual period, and that the flow was much more profuse than usual. Her menses usually last four days; at the last period the flow continued seven days, and was profuse as stated. On questioning her it was learned that she had had numerous attacks of a similar character since puberty, especially in connection with the menstrual periods, and that of late years these attacks had been increasing in severity, the last one being the most severe she had had. The pain is at times almost unendurable. She becomes pale, and often during the attacks she suffers from nausea, and sometimes from vomiting. There is also some distention of the abdomen, with tenderness on pressure. The pain is less severe if she occupies the dorsal position, and she finds that bending the thighs upon the abdomen affords relief.

The question of differential diagnosis is an interesting one in a case of this character. You will note that the pain here is continuous and not intermittent in character, and that position and pressure increase rather than relieve it. If you will recall a case which we had in the clinic a week ago, you will remember that the symptoms somewhat resembled these, in the time of their occurrence—at the menstrual period—and in the sharp character of the pain. But in the former case there would be an attack of severe cramp-like pain in the centre of the hypogastrium or a little to the side, which would continue for a variable time, to be followed by a discharge of fluid or clotted blood, when there would

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be an interval of relief, to be followed by another attack. The pain was relieved by pressure; the patient stated that pressure gave her more relief than anything else, and that when the menses ceased she was apparently well. In the present case it is different. After the cessation of the flow the patient is unable to be about for days, and does not recover from the soreness and tenderness, but is more or less ill during the entire interval between the periods. In the first case we found stenosis of the cervical canal, and determined that the symptoms were due to obstruction in that canal so that the menstrual fluid could not readily flow out. We diagnosticated in that case congestive dysmenorrhea the result of stenosis. In the present case we found a different physical condition. The symptoms here are inflammatory in character and point to a local peritonitis, more especially of the left side; possibly, but not necessarily, involving the left ovary and tube. The pain of pelvic peritonitis is sharp in character, and radiates from the affected side to the opposite, and often down the anterior portion of the limb, especially when the ovary and tube are involved. The symptoms here also resemble somewhat those of so-called ovarian neuralgia, except that in the latter case pressure relieves the pain instead of increasing it; and the disorder is not attended by increase in temperature, and is not followed by exudation, although it usually produces nausea and vomiting.

This patient states that she began to suffer at the time of the occurrence of puberty; and on questioning more closely, we find that the symptoms at first resembled more nearly those of dysmenorrhea, the result of stenosis, due to an imperfection in development. They have since, however, gradually changed to their present character, which I ascribe to pelvic peritonitis; and as the trouble recurs with the menstrual period or from other cause, the disease has been properly termed "recurrent pelvic peritonitis." It recurs for the reason that the original cause and its consequences are still active.

It is probable in a case of this character that there is more or less inflammatory action with every period of ovulation, which is relieved or modified by the occurrence of the menstrual flow, which depletes the congested vessels and ends the process for the time. At the following period there may be an attack just as severe, and each succeeding attack may be more severe than the previous one, until the patient becomes so ill that she is compelled to call her physician; when, if an examination is made, it may be discovered that the uterus is only moderately fixed from a slight film of exudation on the peritoneal surface, or the exudation may be so great as to present a hard, board-like sense to the touch; or indeed the peritoneal pouch may be distended by an exudation so large in quantity as to present a well-marked tumor, such as we found in this case. The tumor formed in these cases is without shape, or rather it is not circumscribed by a smooth wall as in fibroid or ovarian tumor, but rather takes the shape of Douglas's pouch or the post-broad-ligament space. It is usually a little thicker below than above, but the general shape is flat. Both the ovary and the tube of the affected side may be involved in the inflammatory condition and surrounded by the exudation. In that case the tumor would be of somewhat different character. It would be larger, and probably circumscribed, but still irregular and fixed.

It is said that this disease always begins as a vaginitis or endometritis, and extends to the Fallopian tube, finally involving the ovary and peritoneum. When abscess of the tube or ovary is found to exist in connection with the peritonitis, the origin is usually ascribed to gonorrhœal infection; when not attended with the formation of pus it is still said to be due generally to some septic material, non-specific or otherwise, admitted through the same channel.

There can be no question that this is true in many instances, probably in the majority of cases; but I believe it is also true that the disease often arises from traumatism, the result of congestion from interference with the menstrual flow, such as occurs from obstruction in the cervical canal, from stenosis or flexion of the uterus. The injury may also arise from coition, or from an external blow; or from cold, resulting in suppression of the menses. Obstruction in the cervical canal may result in regurgitation of menstrual blood through the Fallopian tubes into the peritoneal cavity. The obstruction may also be in the tube itself as the result of malformation of that organ; or the narrowing may be from inflammatory or other cause. Again, there may be such malformation of the fimbriated extremity of the tube as to prevent its grasping the ovary at the time of the rupture of the Graafian follicle. In the latter case the contents of the follicle would be discharged into the peritoneal cavity, and might result in the development of peritonitis. Early rupture of an extra-uterine gestation sac is another traumatic cause.

We must explain the development of the peritonitis in some cases from causes other than specific or infectious. This patient, for instance, first complained when she began to have her menses, and I do not think it would be scientific to jump to the conclusion in cases such as this that the disease was of gonorrhœal origin. It is not likely that at the early age of puberty a specific cause existed, and it would be unjust to the patient to ascribe it to that origin. It is more likely that the origin of the disease in this case has been in one of those developmental or traumatic causes enumerated above.

But whatever the cause, when called to a case of this character, you should at once make a physical examination, for the purpose of determining the locality and extent of the disease, so that a proper treatment may be adopted. The patient should be at once placed in bed, for rest is one of the prime factors in the management of the case. If great pain and tenderness exist, a hypodermic injection of morphia should be administered. This will relieve the pain and facilitate the examination. If the necessary manipulation cannot be made without it, ether should be administered. The question to be settled first is the diagnosis, and I wish here to impress upon you the necessity of gentle manipulative measures, for I do not think there is a doubt but that many cases have been injured and made worse by rough and awkward examination. First administer an antiseptic vaginal douche for the protection of both the patient and yourself, and see to it that your hands and instruments are rendered aseptic by thorough washing and immersion in an antiseptic lotion before they are used.

This patient was examined at her first visit ten days ago, when I found the uterus moderately fixed. On the left side and in the post broad-liga-

ment-space there was a semi-solid mass of lymph extending into Douglas's pouch, flattened in shape and quite tender on pressure. It was not nodular, and seemed to become thin toward the upper portion, and to be of the general shape which you might imagine would be given to liquid glue or plaster of Paris which had been poured into a mould shaped somewhat as the post-uterine space. I made a diagnosis of recurrent pelvic peritonitis, and ordered the patient to bed. I also ordered certain medicines, the first and most important of which was a saline laxative. For the relief of pain she was given a vaginal suppository as follows:

R—Morphiæ sulph.	gr. iij
Ext. belladonnæ	gr. iij—M.
Ol. theobromæ q. s.		
Et ft. supposit. No. vi.		

Sig.—One, at night for pain, if necessary.

She was also ordered the following mixture, to be used a local application over the painful region.

R—Tr. aconiti rad.	}	āā f3j
Tr. opii		
Tr. iodini		f3vj—M.

Sig.—POISON. For *external* use only. Apply with brush to painful surface as directed, twice a day.

She was requested to paint the affected area with this mixture very thoroughly twice a day. The next most valuable remedy in a case of this character is the hot-water vaginal douche, but it was omitted here because of the fear that it would not be administered properly, and might consequently result in more harm than good.

The patient was seen several times in the interval. She reports to-day that she is better, and that the pain has almost entirely disappeared. This will enable us to make a more thorough examination, and if possible, determine the cause of these recurrent attacks. The patient is placed in the dorsal position, and with the left index-finger well-warmed and lubricated I will proceed to make the examination, and describe to you the condition which I now find. In the first place, I am glad to be able to state that the semi-solid exudation tumor which was found in the post-broad ligament-space, at the first examination ten days ago, has almost disappeared; but in its place there is a hardened, irregular mass, which renders the tissues in this region fixed and rigid. I now place the fingers of the right hand on the hypogastrium, and by the conjoined manipulation which is permitted to-day, because of the absence of great tenderness, I am enabled to explore the post-uterine space more thoroughly. I discover in Douglas's *cul-de-sac* an indurated mass, irregular in shape, which is simply an extension of that which exists in the post broad-ligament-space. I am unable to outline the ovary or Fallopian tube, or any circumscribed or cystic condition resembling disease of those organs. I infer, therefore, that they are probably not involved in the inflammatory process.

The cervix uteri is somewhat enlarged, but the os is very small—so small, indeed, that I can scarcely detect it with my finger. The body of

the womb is also enlarged and firm, but it is mobile, only the cervix being fixed by the indurated exudate described a moment ago.

The absence of the semi-solid tumor which I discovered at her first visit, does not prove that I was wrong in my diagnosis, but simply that the serous portion of the mass has been absorbed, leaving the indurated irregular condition of the exudated material, which we find to-day. That is the history in these cases. Nature attempts, as soon as the inflammatory process has reached its height, to restore the parts to their normal condition by resolution of the exudate; but nature only partially succeeds, for another attack usually supervenes and arrests the process. Another attack supervenes for the reason that the original cause still exists, and also because the remains of the previous attack serve as an abiding stimulus to a recurrence. The original cause of the disease in this case I believe to have been contraction or stenosis of the cervical canal, as described.

What will be the proper course of treatment in the present case under the existing circumstances? Will it be proper for me to begin at once a treatment for the purpose of rendering the cervical canal patulous, so that the menstrual fluid may escape naturally? If that means dilatation, I say emphatically No! for the manipulative measures which are necessary for the performance of the operation of dilatation would very probably cause a renewal of the disease.

As a rule, patients who suffer from chronic pelvic peritonitis, which this practically is, are more or less broken in general health. They are more or less the subjects of nervous exhaustion, indigestion, anæmia, and loss of flesh, as a result of the long suffering endured during the course of the disease. I believe that here the most efficacious plan of treatment is that which embraces REST as its guiding principle. It is unquestionably true that when the patient is allowed to exercise and follow her usual vocation, the attrition of the inflamed surfaces upon each other will tend to keep up the inflammatory condition. It is best, whenever it is possible, to remove the patient from the cares of her home, so that she may have mental as well as physical rest, free from domestic cares and especially from the marital relation. A general regimen, similar to that which was introduced by Dr. S. Weir Mitchell for the treatment of nervous exhaustion, and which consists of seclusion, rest, and diet, together with massage and general electricity, is the one which is most beneficial in these cases, whilst the local treatment which is necessary is being carried out.

Strict attention should at once be paid to the condition of the bowels, for constipation is one of the most troublesome accompaniments of pelvic peritonitis. I believe it often stands in a causative relation, and nearly always as a complication of the disease. Strict attention should be given to the diet, the food being of the most nutritious character.

The local treatment should embrace those remedies which are thought to possess the power of stimulating the absorption of plastic material, either by a counter-irritant or stimulating action. The persistent and free use of the tincture of iodine, both to the hypogastrium and the fundus of the vagina, is of great value. But iodine alone is sometimes found to be so irritating to the skin as to make it necessary to discontinue its use; for that reason I am in the habit of prescribing the formula as given above,

consisting of the tinctures of aconite and opium in addition to the iodine. This may also be applied to the fundus of the vagina instead of the iodine alone, either with a camel's-hair brush or with the cotton-wrapped applicator. The vaginal application of the iodine should be made not oftener than every three days, and sometimes a longer interval is advisable, especially if the remedy is used in a concentrated form. If it is found that too much irritation has been produced, its use must be discontinued for a time, and then remedies of a milder form may be substituted, such as the boro-glyceride, or iodoform and glycerine, one drachm to the ounce, or glycerine alone may be used.

The remedy which I consider next in value to iodine, if not indeed preferable to it, is the hot-water douche. But this remedy is liable to be abused when placed in the hands of the patient herself. It should not go out of the hands of the physician or his trained assistant, the nurse. When administered by the patient herself the water is either used at too low a temperature or in too small quantity, or both. She becomes tired of the pumping and of the position which she must assume, and fails to keep it up during the length of time required for the injection of the quantity usually advised—a gallon or two. The constrained squatting position is in itself injurious. I believe that the long-continued use of warm water is followed by relaxation of the pelvic organs, and this would constitute another objection to the indiscriminate recommendation of this measure; for when it is placed in the hands of the patient she is likely to continue its use for too long a period and after the indications for its use have disappeared. The remedy must be used in accordance with fixed rules, and under certain restrictions, and these I would class as follows:

First. The patient must be in the recumbent posture, and in the dorsal position.

Second. She must not administer the douche herself.

Third. The water must be at a certain *high* temperature, which is best determined by the sensations of the patient. It should be as hot as can easily be borne, and the temperature gradually increased during its administration, for the patient will be able to endure it at a higher temperature after the current has been flowing a few minutes than when it is first begun.

I believe the douche is better than pumping, by Davidson's syringe for instance, because the application is more likely to be thorough and the effect to be maintained longer. For, even when the injection is given by the physician or nurse, the hand is liable to become tired of the pumping and the application stopped, for a time at least. It is the continuous application of the remedy which is most beneficial. For use in my private hospital, I have had made a tripod, five feet in length, with a hook in the center on which a bucket is easily hung. The bucket holds two gallons of water, and near the bottom is placed a stopcock, to which is attached a tube provided with a nozzle and a stopcock at its distal end.

The patient is placed on a bed-pan, which I have modified after that devised by Meriman. The nozzle is then introduced into the vagina, and the stopcock at the bucket turned by the nurse, the water being at a temperature of at least 110° F. The patient can then regulate the flow herself. The water is allowed to enter the vagina, dilating it and flowing off slowly, so that the tissues are in a continuous hot bath, which can be kept

up as long as desired—from ten minutes to half an hour or longer—care being taken to see that the proper temperature of the water is maintained by the addition of a fresh supply from time to time. The important point is not so much the amount of water, as its temperature and constant contact. The application of this remedy should be made once or twice a day, depending on its effect upon the patient.

Recently I have been using "Gordon's utero-vaginal irrigator." This instrument does away with the necessity of the pan, which is a great improvement. The mechanism of the instrument is simply the placing of a bulb similar in shape to that portion of Davidson's syringe which is used for the pumping. This bulb is placed near the end of the vaginal nozzle; its position, therefore, is in the orifice of the vagina, filling that space so that the water cannot escape except through a return tube which passes through the bulb. To this return tube a piece of rubber tubing is attached of sufficient length to conduct the water into a receptacle on the floor. With this instrument the water can be used at a much higher temperature, because it does not come in contact with the surface at the orifice of the vagina, which surface is more sensitive to the heat than that within the canal. Then another great advantage is the getting rid of the necessity of the pan. With these precautions in its administration, hot water is one of the most valuable remedies which we possess in the treatment of pelvic inflammations, and great credit is due to Dr. Emmet for introducing it and his persistence in keeping the remedy before the profession.

After all tenderness has subsided, much may be accomplished by gentle massage of the adherent pelvic organs, *but great care and gentleness are necessary in the manipulation for fear of producing such irritation that the inflammatory process may be renewed.* Then it is very necessary that organic disease of the Fallopian tubes and ovaries should be excluded before massage is begun, for if pyosalpinx or abscess of the ovary should exist and be overlooked, rupture of an abscess might result from the manipulation.

Before massage is begun, the patient should be placed across the bed, the hips resting a little over its edge and the feet placed on the knees of the operator. This relaxes the abdominal muscles, and gives greater control of the patient, so that the necessary manipulation may be thoroughly carried out. One or two fingers of the left hand should now be introduced into the vagina, while the fingers of the right hand are placed upon the hypogastrium; then the contracted ligaments, thickened membranes, and fixed uterus, ovaries, and tubes should be gently manipulated and moved from side to side, or upward and downward, care being taken that the force used is not sufficient to lacerate adhesions, or even so to stretch them as to cause undue irritation. The proper amount of force is probably best regulated by the sensibility of the patient, and if pain is produced by the manipulation it should not be persisted in. This massage may at first be employed at intervals of two or three days, but later it may be used almost daily for a time. By this method it will almost invariably be found that the adhesions soon become attenuated and in many cases finally absorbed. On the other hand, in long-standing chronic cases, the adhesions may be of such size and strength that months may be required to produce any marked effect; and in rare cases the adhesions may be of such character as to be permanently organized, and almost

incurably to fix the organs. Here operative measures of a nature to be described in a future lecture may be necessary.

In these marked chronic cases I have found, in addition to the massage, that stretching of the fundus of the vagina, by packing with antiseptic wool, after the method of Taliaferro, sometimes repeated daily, or at intervals of two, three, or four days, is of great benefit in overcoming the condition. The small rubber colpeurynter, distended with hot water, is a very efficient means of accomplishing the stretching, and I have used it with great satisfaction in some cases.

It has been advised that continuous pressure and stretching of adhesions be made by means of a large pessary; but I would strongly urge against such practice, for I do not think that good ever comes from it, and it is certainly often attended with harm, because the pressure is not equally distributed.

There is another means of stimulating absorption in these cases of pelvic exudation which is now attracting considerable attention. That is electricity, both by the galvanic and faradic currents. I have been using faradism during the last few years in many cases of this character with benefit, and during the last year I have been using galvanism. I think the remedy will eventually take a prominent place, when properly understood and properly applied, in the treatment of these cases, as it already has in the treatment of fibroid tumors. There is no doubt as to the power of the strong galvanic current, applied according to the advice of Apostoli, to modify the nutrition in fibroid tumors, and generally to ameliorate the symptoms. I have had some marked cases to support these views. The same will apply to cases of pelvic exudation, and, I believe, also to some cases of disease of the tubes and ovaries which have not advanced to the suppurative stage. Where pyosalpinx and abscess of the ovary exist, the only remedy is the removal of the diseased appendages by laparotomy. But I wish here to state that I do not believe that pelvic peritonitis is always the result of endometritis or salpingitis, nor that removal of the appendages is always necessary to effect a cure. I learned early in my experience the great value of prolonged rest and thorough local and general treatment in these cases. Benefit always follows, and in many cases a cure. More cannot be said for removal of the appendages. In some of these cases even removal of the tubes and ovaries does not cure the patient. I have, at the present time, under my care two of my own operated cases and several that have been operated upon by others. The patients are not cured; they complain as they did before the operation. If that is the experience of one individual it is probably the experience of all, and will swell the number of uncured cases to many. Do not understand me to say that I am opposed to the removal of incurably diseased uterine appendages, which are a source of suffering to the patient, after other proper means have been used to effect a cure; for I am an advocate of the operation in such cases, as you have seen, and the benefit which sometimes results is marvellous. But I plead for conservatism, and the exhaustion of means which do not subject the patient to an operation which is attended with danger to her life, and by which she is unsexed, so far as fertility is concerned; for many cases will get well without an operation, if time is given and skilful treatment faithfully pursued.